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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,510

05/24/2006

Lothar Volkl

06038

6279

23338 7590 08/12/2009
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EXAMINER

EIDE, HEIDI MARIE

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

08/12/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/576,510	Applicant(s) VOLKL ET AL.	
	Examiner HEIDI M. EIDE	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guiot et al. 6,287,121 (Guiot) in view of Tamagaki et al. 5,644,411 (Tamagaki) in view of Burger 4,767,330.

3. Re claim 13, Guiot teaches a process for determining the form of a duplicate of a residual tooth area which is to be fitted with a dental restoration, in which duplicate sections to be fitted with the restoration and/or duplicate sections determining their design are removed from the duplicate and form data to be allocated to the forms of the sections is determined and stored in a computer, by means of which the form of the restoration is calculated taking into consideration the spatial allocation of the duplicate sections and further comprising individually referencing the duplicate sections as to spatial allocation to each other in a referencing stored in the computer (col. 3, ll. 34-43, 61-65), wherein measuring the duplicate sections is performed by placing each section to be measured separately into a holding device and determining with a second geometry of the section and the referencing allocated to the section (col. 9, ll. 12-17, col. 10, ll. 21-25, col. 12, ll. 10-12) as illustrated in fig. 5. As to claims 14 and 17, Guiot further teaches the duplicate is split apart for obtaining the duplicate sections (col. 3, ll.

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23-35), and the duplicate sections are measured taking into consideration references (col. 3, ll. 61-65). As to claims 15-16 and 26, Guiot teaches the duplicate/casting is directly provided with references, the references being characteristics of the teeth and are produced when making the casting (col. 2, ll. 51-53), the references being specific characteristics of the teeth and matching the data which correspond to the references of the individual model sections with the references data stored in the computer (col. 3, ll. 61-65) and fabrication of the dental restoration under consideration of the form data and the data gained by matching (col. 5, ll. 46-47). Guiot does not teach referencing the duplicate sections independent of the duplicate, the process of making the casting, using the markings, which are lines formed on the side of the base plate as references, grinding the underside of the duplicate, attaching the base plate such that the duplicate is spaced on all sides from an edge of the base plate and using the texture of the base plate as references.

4. Tamagaki teaches referencing the duplicate sections independent of the duplicate, matching up data, which corresponds to the references of the individual model section, with the referencing data stored in a computer (col. 2, ll. 63-67, col. 3, ll. 1-15, 42-52). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Guiot with the referencing of the duplicate sections in order to reduce the number of scans needed to assembly the duplicate.

Guiot/Tamagaki does not teach the process of making the casting, lines formed on the side of the base plate as references, grinding the underside of the duplicate, attaching

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the base plate such that the duplicate is spaced on all sides from an edge of the base plate and using the texture of the base plate as references

5. Burger teaches taking a casting of at least one of the residual tooth areas comprising parts of the jaw, fabricating the duplicate by filling the casting with plaster, mounting the duplicate on a base plate having references thereon, splitting the base plate with duplicate mounted thereon to obtain model sections which comprise the duplicate sections as illustrated in fig. 1 (col. 1, ll. 15-16, col. 4, ll. 16-23). As to claims 18-20, Burger further teaches using the markings, which are lines formed on the edges of the sections as illustrated in fig. 1, of the base plate as references (col. 5, ll. 45-50). As to claim 21, Burger teaches the process comprising surface grinding the duplicate underside and attaching the underside to a planar surface of the base plate following a tooth arc (col. 4, ll. 16-20). Burger teaches the duplicate is attached to the base plate in such a way that the duplicate is spaced on all sides from the edge of the base plate, a longitudinal wall running along the duplicate, a texture such as a wave-shaped or zigzag geometry as illustrated in fig. 1 and using the intersections of the wave-shaped or zigzag geometry as references (col. 5, ll. 45-50). It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Guiot/Tamagaki with the casting process and reference markers taught by Burger as an obvious matter of design choice since it has been held to be of ordinary skill in the art at the time of the invention to change the shape of the references and the location of the references (*In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) MPEP 2144.04 IV B, *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) MPEP VI C).

Response to Arguments

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. EIDE whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**Heidi Eide
Examiner
Art Unit 3732**

**/John J Wilson/
Primary Examiner
Art Unit 3732**

/Heidi M Eide/

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8/10/2009